

STRAYZHIS, V.

Tails of Arend-Roland's comet. Astron. tsir. no.187:10 D '57.  
(MIRA 11:6)

1. Vil'nyusskaya observatoriya.  
(Comets--1956)

STRAYZHIS, V. [Straizis, V.]

Observations of noctilucent clouds in Vilnius on June 12-13 and  
13-14, 1958. Astron. tsir. no. 197:21 N '58. (MIRA 12:7)

1. Vil'nyuskaya astronomicheskaya observatoriya.  
(Clouds)

STRATZHS, V. [Straizis, V.]

Relationship between solar activity and the brightness of the  
nucleus of Arend-Roland's comet. Astron. tsir. no.199:13-14 Ja  
'59. (MIRA 13:2)

1.Vil'nyusskaya astronomicheskaya observatoriya.  
(Comets--1957) (Sun)

PRYAKHIN, Yu.P.; DROFA, V.K.; STRAYZHIS, V. [Straižis, V.]; RUBASHEVSKIY,  
A.A.

Auroras borealis. Astron.tsir. no.202:22 Ja '59.  
(MIRA 13:4)

(Auroras)

STRAYZHIS, V. [Straizis, V.]

Aurora borealis. Astron.tsir. no.203:19 Je '59.  
(MIRA 13:4)

(Auroras)

STRAYZHIS, V.

Observations of noctilucent clouds in Vilnius. Astron. tsir.  
no.204:17-18 S '59. (MIRA 13-6)

1. Vil'nyusskaya astronomicheskaya observatoriya.  
(Night sky)

8/269/63/000/004/025/030  
A001/A101

AUTHOR: Strayzhis, V.

TITLE: On the problem of the structure of cometary tails

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 4, 1963, 68, abstract  
4.51.539 ("Byul. Astron. observ. Vil'nyussk. un-ta", 1960, no. 1,  
22 - 27, Lithuanian and English summaries)

TEXT: The author points out that the visibility of "antitails" of the Arend-Roland comet and some more comets is due to the Earth's passage through the plane of the cometary orbit, which gives ground to assume a strong concentration of the substance of most "antitails" in orbital planes. It is concluded that the "antitail" of the comet 1956 h is formed by the plane cloud of meteoric bodies, rather than being a synchronous formation. It is supposed that a diffuse expanding background, which surrounded the "antitail", was a synchrone of type III. The angle  $\varphi$  between the radius-vector and the "antitail" is calculated by Bessel's formula for the photographs of May 1, 2 and 4. There are 5 references.

L. Marochnik

[Abstracter's note: Complete translation]

Card 1/1

S/269/63/000/003/006/036  
A001/A101

AUTHOR: Strayzhis, V.

TITLE: Photometric observations of Nova V446 Herculis 1960

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 3, 1963, 22, abstract  
3.51.191 ("Byul. Astron. observ. Vil'nyussk. un-ta", 1960, no. 2,  
29 - 39)

TEXT: Eighty four photographic and twenty nine photovisual observations of V 446 Her are presented, which were made at the Vil'nyus Observatory during March 11 - June 4 and March 11 - April 9, 1960, respectively with a Zeiss astro-triplet (D = 120 mm, F = 54 cm). The photographic system is more "violet" and the photovisual one is "redder" than the international system. Moreover, 22 visual observations of V 446 Her are published which were made during March 9 - April 26, 1960, by means of a 10-diameter binocular. Graphs of luminosity curves are presented in photographic, photovisual and visual light, as well as the curve of CI variation:  $CI = m_{pg} - m_{vis}$ . The V 446 Her star is a very rapid Nova similar to V 368 Aql. The color index was increasing up to the end of March, then

Card 1/2



Photometric observations of Nova V 446 Herculis 1960

S/269/63/000/003/006/036  
A001/A101

approached zero with great fluctuations. The causes of such a course of color variation are discussed. There are 14 references.

M. Frolov

[Abstracter's note: Complete translation]

Card 2/2

STRAYZHIS, V.

Tail of Burnham's comet (1959k). Astron. tsir. no. 212:2 Je '60.  
(MIRA 13:10)

1. Vil'nyusskaya astronomicheskaya observatoriya.  
(Comets--1959)

STRAYZHIS, V.; NOVOSILOVA, N.

Auroras borealis. Astron.tsir. no.212:20-21 Je '60. (MIRA 13:10)  
(Auroras)

AZUSIENIS, A.; JASEVICIUS, V.; JUODOKAS, A.; JUSKA, A.; MASNAUSKAS, J.:  
PUCINSKAS, A.; STRAIZIS, V.; ZDANAVICIUS, K.; ZITKEVICIUS, V.;  
SLAVENAS, P., prof., red.; PAIREZIENE, A., red.; CECYTE, V.,  
tekh. red.

[Stellar sky] Zvaigzdetasis dangus. Vilnius, Valstybine poli-  
tines ir mokslines literatūros leidykla, 1961. 113 p.

(MIRA 15:3)

(Constellations)

S/269/63/000/004/007/030  
A001/A101

AUTHORS: Strayzhis, V., Zhukas, A.

TITLE: Noctilucent clouds in 1959 - 1961

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 4, 1963, 28, abstract  
4.51.273 ("Byul. Astron. observ. Vil'nyussk. un-ta", 1961, no. 3,  
46 - 47, Lithuanian and English summaries)

TEXT: It is reported on observations of noctilucent clouds in Lithuania from June 28, 1959, to June 5, 1960. The clouds are described (intensities and shapes) and their altitudes are given. It is noted that no noctilucent clouds were noted in summer 1961.

[Abstracter's note: Complete translation]

Card 1/1

ACCESSION NR: AR4014619

S/0269/64/000/001/0048/0048

SOURCE: RZh. Astronomiya, Abs. 1.51.333

AUTHOR: Strayzhis, V.

TITLE: Interstellar absorption in the region of the southern part of the association Orion. Preliminary communication

CITED SOURCE: Byul. Astron. observ. Vil'nyussk. un-ta, no. 5, 1963, 35-36

TOPIC TAGS: interstellar absorption, stellar association, Orion, color excess, stellar color excess, stellar magnitude, stellar color index, color index

TRANSLATION: This is a preliminary communication on an investigation of interstellar absorption in the region  $5^h16^m \leq \alpha \leq 5^h48^m$ ;  $-9^\circ \leq \delta \leq -2^\circ$ ; the color excess method was used. The magnitudes and color indices of stars were determined photographically in the system B, V. O - F0 stars brighter than the twelfth magnitude were used. Data on total absorption  $A_V$  in seven parts of the region are given. B. Fesenko.

Card 1/2

ACCESSION NR: AR4014619

DATE ACQ: 19Feb64

SUB CODE: AS

ENCL: 00

Card 2/2

STRAYZHIS, V. [Strayzys, V.]

Correlation between photometric systems. Astron.zhur. 40 no.2:  
332-338 Mr-Apr '63. (MIRA 16:3)

1. Institut fiziki i matematiki AN Litovskoy SSR.  
(Photometry, Astronomical)



STRAYZHIS, V.

Reddening lines in the U,B,V system. Astron. zhur. 40 no.5:  
912-920 S-O '63. (MIRA 16:11)

1. Institut fiziki i matematiki AN Litovskoy SSR.

STRAYTHIS, V. [Straižys, V.]

Optimum wave lengths for the determination of interstellar absorption. Astron. tsir. no. 254:3-4 J1 '63.

Inclination of reddening lines in two-index diagrams. Ibid.:  
4-5 (MIRA 17:5)

1. Institut fiziki i matematiki AN Litovskoy SSR.

STRAYZHIS, V. [Straizys, V.]; PLANAVICHYUS, K. [Edanacicius, K.]

Band-width effect and the parameters of the U, B, V system.  
Astron. tsir. no. 254:5-7 J1 '63. (MIRA 17:5)

1. Institut fiziki i matematiki AN Litovsk SSR.

STRAYZHIS, V. [Straizys, V.]

Investigation of the R,G,U photometric system. Part 1: Dependence of basic parameters of the system on spectral class and interstellar absorption. Astron.zhur. 41 no.2:406-412 Mr-Apr '64.

(MIRA 17:4)

1. Institut fiziki i matematiki AN Litovskoy SSR.

STRAYZHIS, V. [Straizys, V.]; ZDANOVICHYUS, K. [Zdanovicius, K.]

Influence of the band-width effect on the parameters of the  
U,B,V system. Astron. zhur. 41 no.3:519-522 My-Je '64.  
(MIRA 17:6)

1. Institut fiziki i matematiki AN Litovskoy SSR i  
Vil'nyusskaya astronomicheskaya observatoriya.

L 41553-65 ENT(1)/ENG(v)/EEC(t) Po-5/Pao-2 GW  
 ACCESSION NR: AR5009010 S/0269/65/000/002/0032/0032

25  
B

SOURCE: Ref. zh. Astronomiya. Otd. vyp., Abs. 2.51.268

AUTHOR: Kakaras, G.; Strayzhis, V.

TITLE: Spectrophotometric study of the nova Hercules 1963

CITED SOURCE: Byul. Astron. observ. Vil'nyussk. un-ta, no. 10, 1964, 5-18

TOPIC TAGS: astrophysics, nova, Hercules, comparison star, spectrophotometry

TRANSLATION: Spectral observations of the nova Hercules 1963 have been made using the slitless spectrograph of the 48-cm reflector of the Vil'nyusskaya Observatoriya (Vilnius Observatory). The spectral region 713400-6500 with a dispersion of 160 Å/mm near H $\gamma$  was studied. In the period 21 February - 22 July 1963 it was possible to obtain 55 spectrograms. The comparison stars were  $\delta$  Cyg (B 9.5 III) and BD+42°3035. The authors present traces of the spectra of the nova and BD+42°3035. The absolute distribution of energy in the spectrum of the nova is given. Visual extrafocal estimates of the brightness of the nova with 7X and 10X binoculars were made at the same time. A total of 136 visual estimates

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L 41553-65

ACCESSION NR.: AR5009010

of the brightness of the nova Hercules 1963 are given. Large fluctuations of brightness in the initial period of observations were noted. Bibliography of 6 items. N. Perova.

SUB CODE: AA

ENCL: 00

*ml*  
Card 2/2

STRALZYS, V. [Stralzyś, V.]

Dependence of the inclination of reddening lines in the U, B, V system on the galactic longitude. Astron. zhur. 42 no.1:203-204 Jan-F '65. (MIRA 18:2)

1. Institut fiziki i matematiki AN Litovskoy SSR i Vil'nyusskaya astronomicheskaya observatoriya.



STRAUD, Dz.; GAVERS, A., red.

[We create the technology of the future already today]  
Nakotnes tehniku radam jau sodien. Riga, Latvijas  
Valsts izd-ba, 1964. 85 p. [In Latvian]  
(MIRA 18:3)

TAURAYTENE, S.A.; GAL'VIDIS, N.M.; STRAZDAS, K.P.; TAURAYTIS, A.S.

Increasing the adhesion of the selenium electrophotographic layer to the film base. Zhur. nauch, i prikl. fot. i kin. 8 no.4:267-270 J1-Ag '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut elektrografii, Vil'nyus.  
(Xerography--Equipment and supplies)  
(Adhesion)

GREH, E.; STRAZDYN', A. [Strazdins, A.]; VANAG, G. [Vanags, G.]

2-aryl-4,5,6,7-tetrahydroxy-1,3-indandiones. Zhur.ob.khim. 32  
no.9:2867-2871 S '62. (MIRA 15:9)

1. Institut organicheskogo sinteza AN Latviyskoy SSR.  
(Indandione)

S/690/62/003/000/004/009  
D201/D308

AUTHOR: Strazdin, I.

TITLE: Sub-algebras in the algebra of Boolean functions of three variables

SOURCE: Akademiya nauk Latvyskoy SSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy, v. 3, 1962. Avtomatika i vychislitel'naya tekhnika, no. 3, 35-53

TEXT: The author gives a full description of the inertia group of Boolean functions of three variables with respect to the group  $T_3$  of substitutions and of inversions of 3 variables ( $T_n$  being the  $n$ -transformation group). He also considers the region of invariance (the sub-algebras) of all sub-groups of group  $T_3$  and determines the types of these regions. The algebra of Boolean binary functions ( $n$ -functions)  $F_n$ , group  $T_2$ , types of 2-functions and regions of invariance of sub-groups  $T_2$  is considered separately. Conclusion: the full solution of the above problems for  $n = 4$  requires the use of computers. Numerical results are tabulated. There are 14 tables.

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S/197/62/000/012/002/002  
B112/B186

AUTHOR: Strazdin', I.

TITLE: Symmetric l-adic functions

PERIODICAL: Akademiya nauk Latvyskoy SSR. Izvestiya, no. 12(185),  
1962, 67-74

TEXT: The author considers l-adic functions  $f(x_1, x_2, \dots, x_n)$ .  $S$  denotes the n-ary symmetrical group and  $N_1$  denotes a group isomorphic to the direct product of n cyclic groups of the order l.  $N_1^h$  denotes the subgroups of  $N_1$  that correspond to the divisors h of l, and  $N_k$  and  $N_k^h$  denote the k-ary subgroups of  $N_1^k$ . Symmetrical l-adic functions are invariant under  $S$ . They are called bisymmetrical if they are invariant under the center  $Z_1$  of the group  $T = SN_1$ , and polysymmetrical when they are invariant under  $N_k^h$ . It is shown that  $T$  is the inertial group of the constants,  $SN_1^h$  is that of the polysymmetrical functions, and  $SZ_1$  is that

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Symmetric l-adic functions

S/197/62/000/012/002/002  
B112/B186

of the bisymmetrical functions. Finally, the numbers of the possible functions of one type are determined. There are 2 tables.

PRESENTED: August 22, 1962

✓

Card 2/2

STRAZDIN', I. [Strazdina, I.]

Group of rewritings of adic functions . Izv.AN Latv.SSR no.3:70-77  
'63.

(MIRA 16:5)

(Functional groups)

STRAZDINS, I.

Fifth All-Union Colloquium on General Algebra. Izv.AN Latv.SSR  
no.7:154 '63. (MIRA 17:4)



STRAZDIN', K.[Strazdins,K.]

V.I. Lenin about proletarian internationalism and the friendship  
of peoples. In Russian. Vestis Latv ak no.4:5-15 '60.

(EEAI 10:7)

(Lenin, Vladimir Ilich) (Internationalism)  
(Communist parties)

<sup>1</sup>  
STRAZDIN', K. [Strazdins, K.]

Flourishing of social sciences in the Latvian SSR. In Russian.  
Vestis Latv ak no.7:25-38 '60. (EEAI 10:7)  
(Latvia--Social sciences)

STRAZDIN<sup>1</sup>, K.[Strazdins, K.]

Social sciences at the Academy of Sciences of the Latvian S.S.R.  
Vestis Latv ak no.7:131-133 '61.

(Latvia--Social sciences--Research)

STRAZDINA, P.F., kand. ekon. nauk, red.; KRYLOVA, N., red.; LEMBERGA, A.,  
tekhn. red.

[Problems in developing the public dining system] Problemy raz-  
vitiia obshchestvennogo pitaniia. Riga, Izd-vo Akad.nauk  
Latviiskoi SSR, 1963. 122 p. (MIRA 16:5)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu akademijs.  
Ekonomikas instituts. 2. Ministerstvo torgovli Latviyskoy SSR.  
(for Strazdina).

(Latvia--Restaurants, lunchrooms, etc.)

STRAZDINA, Pauline, kand. ekon. nauk; AVEKSE, R., otv. za vypusk;  
OSIS, R. [translator]; SVEIDE, V. [translator]; ABOLS, J.  
[translator]; VOLFS, L., tekhn. red.

[Development of public dining facilities in Soviet Latvia]  
Sabiedriskas edinasanas attistiba Padomju Latvija. Riga,  
"Padomju Latvijas kooperators" 1960. 55 p. (MIRA 16:4)  
(Latvia--Restaurants, lunchrooms, etc.)



DZENITIS, Ya.A.; BILN, I.N.; STRAZDIN<sup>1</sup>, V.F.; SHTERN, S.F.

Production of 2-phenyl-1,3-indandione. Med. prom. 16 no.3:26-27 Mr '62.  
(MIRA 15:5)

1. Rizhskiy khimiko-farmatsevticheskiy zavod No.3.  
(INDANDIONE)

STRAZDINA, A.(Riga)

Biology and ecology of the injurious insects of onion cultures under  
Latvian conditions, 1958-1959. Vestis Latv ak no.9:137-142 '60.  
(EEAI 10:9)

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts.

(Latvia--Onions) (Latvia--Insects)



TURCHINS, Ya.B. [Turcins, J.], red.; GUL'YAN, P.V., kand.ekon.nauk, red.;  
STRAZDINA, P.F., kand.ekon.nauk; red.; SAVEL'YEVA, Ye., red.;  
LEMBERGA, A., tekhn.red.

[Problems in improving the living standards of workers] Voprosy  
povysheniia urovnia zhizni trudiashchikhsia; materialy. Riga,  
Izd-vo Akad.nauk Latviiskoi SSR, 1961. 218 p.

(MIRA 15:2)

1. Konferentsiya, posvyashchennaya voprosam povysheniya urovnya  
zhizni trudyashchikhsya Latviyskoy SSR, Riga, 1960. 2. Chlen-  
korrespondent AN Latviyskoy SSR (for Turchins). 3. Institut  
ekonomiki AN Latviyskoy SSR (for Gulyan, Strazdina).

(Latvia--Cost and standard of living--Congresses)

STRAZDIN'SH, F. [Strazdinš, F.]; ABRAM, A.

Work of local branches of the Scientific Technical Society of the  
Flour, Groats, and Elevator Industry in Latvia. Muk.-elev. prom.  
27 no.1:24-25 Ja '61. (MIRA 14:1)

1. Predsedatel' Latviyskogo respublikanskogo pravleniya Nauchno-  
tekhnicheskogo obshchestva mukomol'noy i krupyanoy promyshlennosti  
i elevatornogo khozyaystva Latvii (for Strazdin'sh). 2. Zamestitel'  
predsedatelya respublikanskogo pravleniya Nauchno-tekhnicheskogo  
obshchestva mukomol'noy i krupyanoy promyshlennosti i elevatornogo  
khozyaystva Latvii (for Abram).

(Latvia—Grain milling)  
(Latvia—Grain—Storage)

TSINOVSKIY, Ya. [Cinovskis, J.]; YEGINA, K. [Jegina, K.]; STRAZDINYA, A.  
[Strazdina, A.]

Using new insecticides (rogor and trichlormetaphos-3) for controlling  
the pests of corn and onion. Vestis Latv ak no.3:67-70 '62.

1. Latvijas RSR Zinatnu akademijs, Biologijas instituts.

TSINOVSKIY, Ya.P.; YEGINA, K.Ya.; STRAZDINYA, A.A. [Strazdina, A.]

Utilization of morphological characteristics in the forecast  
of plant pests. Zhur. ob. biol. 24 no.1:30-42 Ja-F'63  
(MIRA 16:11)

1. Institute of Biology, Academy of Sciences of the Latvian  
S.S.R.

\*

STRAZDS, D.E

STRAZDS, D.E., glavnyy inzhener.

Bleaching wood pulp with sodium bisulfite. Bum.prom. 22 no.9:29-30 S '53.  
(MLRA 6:8)

1. Bumazhnaya fabrika "Ligatne".

(Wood pulp)

STRAZDS, D.E.; REYZIN'SH, R.E.; YAKOBSON, O.Ya.

Continuous pulp beating with rollers. Bum.prom. 29 no.10:15-16  
0 '54. (MLRA 7:11)

1. Bumazhnaya fabrika "Ligatne"  
(Papermaking machinery)

SOV/81-59-16-58493

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 409 (USSR)

AUTHORS: Strazh, A.G., Makar'yev, S.V.

TITLE: The Combination of Technological Processes and Installations in Oil Refining

PERIODICAL: Vestn. Sovnarkhoza Checheno-ingusheti, 1958, Nr 5, pp 8-11

ABSTRACT: Giprogrozneft' and GrozNII have designed a combined installation for the refining of 3 million tons of petroleum per year in which the processes of atmospheric petroleum distillation, the destructive distillation of mazut, the catalytic cracking of distillates and the head fractionation of gases are combined. For utilizing the heat obtained in the burning of coke in the regenerator of catalytic cracking, heating coils are installed through which petroleum is pumped. The heat of waste flows is also broadly used. According to the data of Giprogrozneft' the combination of the four processes in a single installation, as compared to four enlarged installations for the separate processes, reduces the capital ex-

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SOV/81-59-16-58493

The Combination of Technological Processes and Installations in Oil Refining

penditures by 40% and the operation costs by 33%. The authors regard an increase in the capacity of the combined installation up to 6 million tons per year as possible.

S. Rozenoyer.

Card 2/2



STRAZH, A.G.

Possibilities for lowering construction costs of petroleum  
refineries. Prom.stoi. 8 no.7:15-17 '60. (MIRA 13:7)

1. Giprogrozneft'.  
(Petroleum refineries)

3/065/61/000/002/003/008  
E030/E235

AUTHORS: Papkov, B. M. and Strazh, A. G.  
TITLE: Hydrofining or Contact Treatment of Oils  
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 2,  
pp. 25-28

TEXT: The technical and economic comparisons are drawn in this article between hydrofining and contact refining of oils. Contact treatment has always been expensive, because of the high oil loss, the high transportation costs of fresh and spent clays, and the cost of bulky apparatus which is dear to operate and difficult to automate, but in addition it is becoming impossible to meet requirements of colour, carbon and sulphur content, stability, viscosity index, and other qualities. By contrast, the hydrofining methods recently designed by Giprogrozneft', on the basis of data from GrozNII and VNII NP allow even transformer and turbine oils to be made from sulphurous crudes. In the present method, the oil is split into light, middle, and heavy fractions, which are each sent to identical units. They have a fixed bed reactor containing an alumino-molybdenum catalyst 8TY-443-51 (VTU 443-57), into which hydrogen-rich gas is also fed, gas  
Card 1/5

S/065/61/000/002/003/008  
E030/E235

# Hydrofining or Contact Treatment of Oils

separators, distillation column, vacuum drying tower, filterpress and coolers. The gas is recirculated after removal of H<sub>2</sub>S over monoethanolamine, and enrichment with hydrogen. Overheads from all three distillation units contain lighter hydrocarbons produced in a side reaction, and these are combined and blended to diesel oil. The reaction and regeneration cycles are as follows:

## Reaction Cycle

Reactor temperature, °C	300	✓
Reactor pressure (atm)	40	
Velocity of feed (/hour)	1	
Quantity of hydrogen-rich gas circulating	600	
% vol. of hydrogen at reactor inlet	not less than 75	
% vol. of H <sub>2</sub> S at reactor inlet	not more than 0.1	
Consumption of 100% hydrogen (% on feed)	0.1	
Consumption of catalyst (alumino-molybdenum	0.3	
VTU 443-57) in all streams (tons p.a.)	42.5	

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0/005/61/000/002/003/003  
0030/2235

# Hydrofining or Contact Treatment of Oils

## Regeneration Cycle

Pressure for driving off coke, atm.	40
Temperature for driving off coke, °C	550
Accumulation of coke on catalyst (% wt)	15
Accumulation of sulphur on catalyst (% wt)	7
Content of oxygen at reactor inlet (%)	0.2
at start	1.2
at finish	

and the properties of feed and raffinate are tabulated in Table 1. ✓  
The whole plant is made of easily obtainable equipment, except for  
the rather high compressor requirement. The economic advantage  
of hydrofining over contact treatment may be seen in Table 2.  
The output is raised by 4.4% (in addition to the improvement in  
quality), personnel more than halved, and time efficiency more than  
doubled. Running expenses (mainly hydrogen consumption) are  
reduced 13%, but if a cat. reformer is also on site to produce  
cheap hydrogen, the saving is increased to 23%. Admittedly,

Card 3/5

5/065/61/000/002/003/003  
2030/2235

# Hydrofining or Contact Treatment of Oils

capital charges are doubled, but the increase is recovered in about two years operating. There are 2 tables and 1 figure.

ASSOCIATION: Giproprozneft'.

Table 1

Показатели	Сырье и продукты гидроочистки					
	дистиллятное	дистиллятное	остаточное	дистиллятное		остаточное
	мало-вязкое	вязкое	residue	мало-вязкое	вязкое	residue
Плотность, $\rho_{20}^{\circ}$ density	0.880	0.893	0.95	0.884	0.888	0.899
Вязкость, сст: viscosity (cst)						
при 50°	20.7	45.2	400	20.56	41.6	432.2
при 100°	5.18	8.85	21.1	5.04	8.08	20.42
Температура застывания, °C	-15	-11	-14	-14	-11	-12
Температура вспышки в закрытом тигле, °C	180	206	207	182	204	226
Flash Point (closed cup), °C	180	206	207	182	204	226
Содержание серы, % вес.	1.37	1.56	1.63	0.93	1.03	1.15
Content of sulfur, % by weight	1.37	1.56	1.63	0.93	1.03	1.15
Консумность, %	0.10	0.14	0.71	0.08	0.13	0.50
Consumption, %	0.10	0.14	0.71	0.08	0.13	0.50
Цвет по кохориметру 1, мм	9.0	4.2	—	24.0	38	—
Color by colorimeter 1, mm	9.0	4.2	—	24.0	38	—
Марка НПЗ	S					

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8/065/61/000/002/003/003  
1030/1235

Hydrofining or Contact Treatment of Oils

Table 2

Показатели	Установки Plants	
	гидроде- очисти- массой	контакт- ной очи- стки Contact массой
Производительность установки, тыс. т/год	360.0	360.0
Выход готовой продук- ции, % к сырью, про- цесса	98.4	94.0
Штаты (чел.)	21	47
Производительность тру- да	100	45
Площадь установки, тыс. м <sup>2</sup>	6	49
Капиталоёмкость, %	100	50
Годовые эксплуатацион- ные расходы, при стои- мости водорода уста- новки, %	100	113
по производству во- дорода	100	123
катализитического ри- форминга	100	123

Card 5/5

STRAZH, A.G.

Calculation of production costs in petroleum refining. Khim.i  
tekhn.topl.i masel 6 no.9:51-54 S '61. (MIRA 14:10)

1. Giprogrozneft'.  
(Petroleum--Refining)

STRAZH, A.G.

Shortening the building period by improving the plans of  
petroleum refineries. Trudy MIEI no.15:136-143 '61.

(MIRA 14:12)

1. Rukovoditel' gruppy otдела tekhniko-ekonomicheskikh obosnovaniy  
proyekt'nogo instituta Giprogrozneft'.  
(Petroleum refineries)



STRAZH, A.G.

Economic aspects of the use of various catalysts of the catalytic  
cracking of a heavy feed stock. Khim. i tekhn. topl. i masel 7  
no.1:41-44 Ja '62. (MIRA 15:1)  
(Cracking process) (Catalysts)

DETEGGO, Yu.B., kand. tekhn. nauk; PLESHKOV, D.I., kand. tekhn. nauk;  
SKOKAN, A.I., inzh.; STRAZH, V.I., inzh.; YARKIN, A.A., inzh.

Self-propelled construction and road machinery. Stroi. i dor.  
mash. 9 no.8:10-14 Ag '64 (MIRA 18:1)

157 00211 15 15  
GREBENSHCHIKOV, P.A., .obshchiy red.; YUDOLOVICH, V.V., red.; VIATKIN, G.F.,  
red., NERUCHEV, G.A., red.; SUKHORUKOV, M.A., red.; ~~SEBAZH, Yev. P.~~;  
red. MUKHINA, A.I., red.; KOLESNIKOV, F.M., red. izd-va; SEMENCHENKO,  
P.P., tekhn. red.

[Economy of the Chechen-Ingush A.S.S.R.; a statistical manual]  
Narodnoe khoziaistvo Checheno-Ingushskoi ASSR; statisticheski  
sbornik. [Groznyi] Checheno-Ingushskoe knizhnoe izd-vo, 1957. 131 p.  
(MIRA 11:3)

1. Chechen-Ingush A.S.S.R. Statisticheskoye upravleniye. 2. Nachal'-  
nik Statisticheskogo upravleniya Checheno-Ingushskoy ASSR (for  
Grebenshchikov)

(Chechen-Ingush A.S.S.R.—Statistics)

VISHNEVSKIY, N.A., prof.; IVANOVA, Ye.A., vrach; STRAZHDINA, T.D., vrach

Diagnostic significance of studies of the optic nerve apparatus  
of the eye by the chronaximetry and accommodometry. Opt.zhur.  
14 no.3:163-169 '59. (MIRA 12:6)

1. Iz Tsentral'nogo instituta usovershenstvovaniya vrachey.  
(OPTIC NERVE--DISEASES)  
(EYE--EXAMINATION)

Catalytic oxidation of sodium sulfite in the presence of copper precipitated on charcoal. K. Volkov and D. Semashenko. *Univ. Inst Kiev, Bull. sci., Rec. chim.* 1, No. 4, 95-9(1935).—Catalyst was made according to Andrusov (cf. C. A. 27, 2087). Into 150 mg. of catalyst admit O<sub>2</sub> from a tank for 10 min. Add 25 cc. freshly prepd. 0.06 N Na<sub>2</sub>SO<sub>3</sub>, stopper tightly, shake energetically for 15 sec., and let stand for 8 min. Filter rapidly and add 5 cc. to 5 cc. of 0.06 N I<sub>2</sub> soln. Titrate excess I<sub>2</sub> with 0.05 N thiosulfate soln. and det. amt. of sulfite left in soln. after oxidation. Amt. of sulfite (I) and sulfate (II) were detd. in 10-cc. samples by oxidizing I with Br water to II and pptg. II with N BaCl<sub>2</sub>. Deviations were 2-3%.

B. Z. Kamich

CA

PROCESSES AND PROPERTIES INDEX

Physicochemical properties of the nervous tissue. II. Electrical conductivity, viscosity and  $pH$  of different parts of the nervous system. S. V. Fomin and D. M. Strazhesko. *Ukrain. Biokhem. Zhur.* 9, 807-810 (in Russian) 1910-12, in German 913-15 (1938). III. Ascorbic acid content in the brain of *Glis glis* during hibernation. S. V. Fomin. *Ukrain. Biokhem. Zhur.* 9, 879-881 (in Russian) 1910-12, in English 892-5 (1938).—The ascorbic acid content of the cerebral hemispheres and of the cerebellum falls as compared with the normal state. It is assumed that the decrease in the oxidative processes during hibernation is connected with this phenomenon. E. E. Stefanovsky

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

15000 804179

15000 804179

15000 804179

1ST AND 2ND CODES																									
PROCESSES AND PROPERTIES INDEX																									
<p>Adsorption of electrolytes from nonequeous solutions. Adsorption of electrolytes from solutions in acetone by activated carbons. D. M. Strazhenko. <i>Ukr. nat. Kier. Bull. sci., Rec. chim.</i> No. 3, 197-219 (in Russian, 219-20, in English, 220) (1937).--The salts KI, NH<sub>4</sub>CNS, CoCl<sub>2</sub>, HgCl<sub>2</sub> and CuCl<sub>2</sub> were adsorbed in an acetone soln. by using both ashless and ash-contg. activated C. The heavy metal salts are adsorbed most and sometimes their adsorption exceeds that from an aq. soln. The alkali metal salts are adsorbed little. The adsorption of the salts is shown in the following decreasing order: CuCl<sub>2</sub>, HgCl<sub>2</sub>, CoCl<sub>2</sub>, NH<sub>4</sub>CNS. KI was not adsorbed at all. There is a relation between the rate of adsorption of electrolytes and the mol. cond.; the lower the adsorption the greater the mol. cond. There is no inverse relation between the soly. of electrolytes and the extent of adsorption. Thirty-seven references. B. Z. Kamich</p>																									
<p>ASB-50.6 METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>3200 030170</p>																									

STRAZHELO, D.N.

Kiev

Chair of Chemistry, First Medical Institute, (-1940-)

"The Problem of the Absorption of Electrolytes from Non-aqueous Solutions"  
Part I.

Zhur. Fiz. Khim, Vol. 14, No. 7, 1940



STRAZHEESKO, D. N.

Strazhesko, D. N. and Bronshteyn, V. N. "On the question of the  
specific absorption of the cations of heavy metals,"

Ukr. khim. zhurnal, Vol XV, Issue 1, 1949, p. 53-65, - Bibliog: p. 64-65

SO: U-5241, 17 December 1953, (Leto is 'Zhurnal 'nykh Statey, No. 26, 1949)

CA

2

**Electrostatic adsorption of ions in nonaqueous solutions.**  
 D. M. Strazhesko and B. E. Turtakova (Inst. Phys. Chem., Acad. Sci. Ukr. S.S.R.). *Dopovid. Akad. Nauk Ukrain. N.S.R.* 1960, 100-12 (in Ukrainian). --Hydrogen and oxygen (air) electrode potentials of platinized Pt are measured in 0.01 N solns. of HCl and NaOH in MeOH + H<sub>2</sub>O and EtOH + H<sub>2</sub>O mixts. of different comps. and in the pure alcs. The reversible H potential varies very little with addn. of the alcs. to H<sub>2</sub>O; there is only a slight shift of not over 10-20 mv. in the neg. direction. In contrast thereto, the pos. potential of the irreversible air electrode is strongly lowered in the presence of alcs., particularly EtOH; in 0.01 N HCl in 50% EtOH, the difference is about 500 mv. The org. substance decreases strongly the electrostatic adsorption of anions.  
 N. Thon

CA

Relation between the adsorption of coagulator ions and their concentration in solution. D. M. Mirashenko and Yu. M. Glazman (L. V. Piarzhhevskii Inst. Phys. Chem., Kiev). *Dopovid Akad. Nauk Ukrain. R.S.R.* 1980, 205 (in Ukrainian).—The adsorption of  $\text{Sr}(\text{NO}_3)_2$  (0.01–0.1 M) in coagulation of hydromels of AgI (10 millimole/l.), HgS, and  $\text{As}_2\text{S}_3$  (8 millimole/l.), was investigated by tagging with radioactive  $\text{Sr}^{90}$ . With  $c$  = concn. of  $\text{Sr}(\text{NO}_3)_2$  corresponding to the coagulation threshold, the amts. adsorbed, at the concns.  $c$ ,  $5c$ , and  $10c$ , are: on AgI, 47.6 micromole/g. (4.17%), 184.7 (3.47), 315.1 (2.98); on HgS, 16.8 (5.18), 46.8 (2.87), 83.3 (2.86); on  $\text{As}_2\text{S}_3$ , 68.9 (12.88), 90.2 (3.88), 118.5 (2.33). The adsorption is practically instantaneous, and the  $\text{Sr}^{++}$  ions are held firmly by the coagulate. N. Thon

CA

Investigation by the tracer method of the coagulation of lyophobic sols by electrolytes. Adsorption of ions of the same sign. Yu. M. Glazman and D. N. Strazhesko (L. V. Pizarshevskii Inst. Phys. Chem., Kiev). *Doklady Akad. Nauk S.S.S.R.* 73, 411-13(1950).--The amt. of neg. ions  $\text{PO}_4^{3-}$  and  $\text{SO}_4^{2-}$  adsorbed by the neg. hydrosols of AgI (0.01 M) and HgS and  $\text{As}_2\text{S}_3$  (0.001 M) was detd. by tagging the anions with radioactive  $\text{P}^{32}$  and  $\text{S}^{35}$ , resp. Both at the threshold of coagulation, and in the presence of a twofold excess of the electrolyte the amts. of anion adsorbed were insignificant;  $\text{PO}_4^{3-}$  was not adsorbed on AgI, and the amts. adsorbed on HgS and  $\text{As}_2\text{S}_3$  were  $<0.8$  and  $<0.0$  millimole/g., resp.; adsorption of  $\text{SO}_4^{2-}$ , none on AgI or HgS, and  $\sim 2.1$  millimole/g. on  $\text{As}_2\text{S}_3$ . Adsorption of such small amts. can play no role in coagulation, ion antagonism, etc. Pos.  $\text{Se}^{6+}$  ions (tagged with radioactive  $\text{Se}^{75}$ ) were adsorbed, at the threshold of coagulation, to the extent of 47.6 millimole/g. on AgI, 16.8 on HgS, and 63.9 on  $\text{As}_2\text{S}_3$ . N. Thon

1951

STRAZHESKO, D. N.

Mbr., Inst. Physical Chemistry im. L. V. Pisarzhevskiy, Dept. Physico-Math. & Chem. Sci.,  
Ukr. Acad. Sci., -1950-. "Exchange of Phosphorus Isotopes in the Systems  $\text{H}_3\text{PO}_2$ - $\text{H}_3\text{PO}$  and  
 $\text{KH}_2\text{PO}_2$ - $\text{KH}_2\text{PO}_3$  and the Tautomerism of Hypophosphorous Acid," Dok. AN, 75, No. 6, 1953.

STRACHENKO, D. N., BRODSKIY, A. I. and CHERVYATSOVA, L. L.

"Exchange of Phosphorus Isotopes in the Systems  $H_2PO_2-H_3PO_3$  and  $KH_2PO_2-KH_2PO_3$ , and the Tautomerism of Hypophosphorous Acid", Dokl AN SSSR, (Novaya Seriya), Vol. LXXV, No. 6, pp 823-825, 1950.

Brodskiy, A. I.: Corr Mem, Acad Sci USSR

Chervyatsova, L. L. : Inst Phys Chem imeni L. V. Pisarzhevskiy Acad of Sci USSR

SO: W-17845, 23 Apr 1951

*Strazhesko, D. M.*

✓ Study of the electrolyte coagulation of lyophobic sols by the method of tagged atoms. I. Adsorption of ions having a charge of the same sign as the particles. Yu. M. Glazman, D. M. Strazhesko, and B. E. Tartakovskaya. *Colloid J. U.S.S.R.* 15, 161-71 (1953) (Engl. translation).—See C.A. 47, 9107e. H.L.H.

STRAZHESKO, D.N.

Nuclear Phys. - Heavy Water  
USSR/Chemistry - Isotopes

1 Jun 53

"The Influence of Activated <sup>Carbon</sup>Charcoal on the Tautomeric Conversion of Acetone", D.N. Strazhesko, and L.L. Chervyatsova, Inst of Phys ~~Chem~~ Chem-istry imeni L.V. Pisarzhevskiy, Acad of Sci Ukr ~~SSR~~ SSR

D.N.  
Dok Akad Nauk SSSR, Vol 90, No 4, pp 607-610

In the absence of a catalyst, there is only 3-4% exchange between heavy water and acetone in glass ampoules, even at elevated temperatures. At 0° there is practically no exchange between heavy water and acetone in the presence of hydrogenated charcoal, although at 80-85° there is 20-25%.  
Presented by Acad A.I. Frumkin 31 Mar 53.



STRAZHESKO, D.N.; CHERVIATSOVA, L.L.; FRUMKIN, A.N., akademik.

Effect of active carbon on tautomeric conversion of acetone. Dokl.AN SSSR  
90 no.4:607-610 Je '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Frumkin). 2. Institut fizicheskoy khimii im.  
L.V. Pisarzhevskogo Akademii nauk Ukrainskoy SSR (for Starsheskiy, Chervya-  
tsova). (Carbon, Activated) (Acetone)

STRAZHEKO, D.N.

62 V Effect of active charcoal on tautomeric transformation of acetone. D. N. Strazhesko and L. L. Chervyntsova (L. V. Pisarzhevskii Inst. Phys. Chem., Acad. Sci. Ukr. S.S.R., Kiev). *Doklady Akad. Nauk S.S.S.R.* 90, 607-10(1953).--- Activated charcoal (I) in the presence of O or H behaves as an irreversible O or H electrode (C.A. 43, 7774a). When acetone (II), charcoal (activated in CO<sub>2</sub> stream at 900°), and D<sub>2</sub>O (III) are sealed in a glass tube under H atm., and II and III sepd. by distn. after a variable period of time and analyzed for D, it is found that II and III exchange D to the extent depending on the temp. and time of reaction. Thus, at 85° and a reaction time of 9 hrs. the exchange is 25.0% (in the same conditions, except that 0.01N HCl is used and no I, the exchange is only 10%), but at 0° and 12 hrs. reaction time the exchange is 2.5%. However, in the atm. of O, even at elevated temps., I does not catalyze the D exchange between II and III because of formation of a pos. potential drop at the surface of I (cf. D. N. Strazhesko, *Dissertation*, Kiev, 1951) resulting in unavailability of OH<sup>-</sup> ions necessary for the D exchange. R. Dowbenko

STRAZHESKO, D. N.

USSR/Chemistry - Physical chemistry

Card 1/1      Pub. 147 - 13/26

Authors : Grinberg, A. D.; Strazhesko, D. N.; and Tovbin, M. V.

Title : Reasons for the retentiveness of porous adsorbents

Periodical : Zhur. fiz. khim. 28/1, 81-86, Jan 1954

Abstract : The kinetics of iodine desorption from activated carbon by means of a  $\text{CCl}_4$  stream at small adsorption values (lower retentiveness of the carbon) was investigated by the marked atom method. The rate of desorption at such values was determined by diffusion factors, which indicates that the retentivity of porous adsorbents is due not to the special state of the substance adsorbed at small surface charges but to the migration conditions of the adsorbed substance from the micropores to the surface of the adsorbent. The kinetics of isotopic exchange between the iodine adsorbed by the carbon and the iodine dissolved in  $\text{CCl}_4$  was investigated and it was found that this exchange takes place as result of the adsorption and desorption processes. Seven references : 6-USSR and 1-English (1923-1952). Tables; graphs.

Institution : Acad. of Sc. Ukr-SSR, The L. V. Pisarzhevskiy Institute of Physical Chemistry  
Submitted : March 7, 1953

STRAZHESKO, D. N.

USSR/ Chemistry - Physical chemistry

Card 1/1 : Pub. 22 - 28/44

Authors : Strazhesko, D. N., and Tartakovskaya, B. E.

Title : Mechanism of adsorption of acids by active carbon from anhydrous solutions

Periodical : Dok. AN SSSR 98/1, 107-110, Sep 1, 1954

Abstract : The adsorption of a typically strong HCl acid by active carbon from different anhydrous solutions and from pure organic solvents was investigated in air and hydrogen atmospheres. The adsorption characteristics of the carbons, in the diluted solutions of strong HCl, NaOH, and KJ electrolytes, were found to be in perfect agreement with the electro-chemical theory of adsorption. The method of carrying out the adsorption experiments is described. Data, regarding the adsorption of HCl with Q- and H-carbons, are presented in table. Twenty-three references: 19-USSR; 2-USA and 2-German (1920-1950). Table; graphs.

Institution : Acad. of Sc. Ukr-SSR, The L. V. Pisarzhevskiy Institute of Physical Chemistry

Presented by : Academician A. N. Frumkin, April 26, 1954

277446, D.N.  
USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 22 - 32/53

Authors : Strazhesko, D. N.

Title : Electrochemical adsorption of salts from anhydrous solutions with active carbon

Periodical : Dok. AN SSSR 102/4, 775-778, Jun 1, 1955

Abstract : Investigation was conducted to determine the adsorption of alkali metal halides (LiCl, LiBr, LiJ, NaJ and KJ) from solutions in water, various mixtures of water with organic solvents as well as from pure anhydrous solvents - methyl and ethyl alcohols, ethylene glycol and acetone - by means of active carbon. The experiments were carried out in air and hydrogen atmospheres and the results obtained are listed. Twenty-four references: 19 USSR, 2 USA and 3 French (1906-1954). Table; graphs.

Institution : Acad. of Sc., Ukr. SSR, The L. V. Pisarzhevskiy Inst. of Phys. Chem.

Presented by: Academician A. N. Frumkin, January 13, 1955

TARTAKOVSKAYA, B.E.; STRAZHESKO, D.N.

Determining the volume of circulatory blood by isotope dilution.  
Vest.rent. i rad. no.4:3-11 J1-Ag '55. (MLRA 8:12)

1. Iz otdela klinicheskoy gematologii (zav.prof. D.N.Yanovskiy)  
Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy  
meditsiny (dir.-deystvitel'nyy chlen AMN SSSR D.N.Strazhesko  
i instituta fizicheskoy khimii AN SSR (dir. deystvitel'nyy  
chlen Akademii nauk USSR A.I.Brodskiy)  
(BLOOD VOLUME, determination  
radioisotope dilution method)

STRAZHESKO, D.M.,

✓ The adsorption of electrolytes by acidified carbon from nonaqueous solvents. D. M. Strazhesko and G. P. Yan-kova (O. O. Bogomol's Inst., Kiev). *Doklady Akad. Nauk Ukr. R.S.S.* 1956, 644-7. The adsorption of HCl, KI, and AgNO<sub>3</sub> was investigated on acidified C (according to Krut, C.A. 23, 1706) from a mixt. of H<sub>2</sub>O with EtOH or acetone, also from pure EtOH and acetone. For HCl and AgNO<sub>3</sub>, the adsorption is a function of the solvent compn., and the adsorption curves show a typical saddle shape. With KI the adsorption is somewhat more complicated; here an exchange takes place, acid migrates into the solvent, and I<sup>-</sup> goes to the C, but there is no stoichiometric relation between the I<sup>-</sup> adsorbed and the amt. of acid released to the solvent. 21 references. W. L.

STRAZHESKO, D.N.; LUNENOK-BURMAKINA, V.A.

The effect of phenols on the electrochemical adsorption of  
ions by activated carbon. Ukr.khim.zhur. 22 no.4:472-477  
'56. (MIRA 10:10)

1. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN USSR.  
(Phenols) (Electrochemistry)



AUTHORS: Strazhesko, D. N., Tarkovskaya, I. A., Chervyatsova, L. L. 78-1-20/43

TITLE: Investigation of the Mechanism of Adsorption of the Salts by Oxidized Coal With the Application of Radioactive Indicators (Issledovaniye mekhanizma sorbtzii soley okislennym uglem s primeneniym radioaktivnykh indikatorov).

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 1, pp. 109-114 (USSR).

ABSTRACT: There is no uniform opinion in literature on the principal problem of the mechanism of selective adsorption of the cations by oxidized coal (references 1 to 16). The importance of the mere electrochemical factor in this complicated phenomenon remains largely not clear (reference 18). This is mainly due to the fact that the values of adsorption were directly determined. The authors for this reasons set themselves the problem to apply the method referred to in the title, by which, as is known, (reference 19, 20), the smallest quantities of adsorbed ions can be determined immediately and with sufficient accuracy. Preliminary results on the cation-adsorption of rubidium and calcium (with  $Rb^{86}$  and  $Ca^{45}$ ) on ashless oxidized coal from aqueous solutions of their chlorine salts or from water-mixtures with organic solvents:

Card 1/3

Investigation of the Mechanism of Adsorption of the Salts  
by Oxidized Coal With the Application of Radioactive Indicators.

78-1-20/43

Methyl- and isopropyl alcohol, acetone, dioxane, and phenol, as well as from non-aqueous media are given in the present report. An experimental part with the data on the test methods follows. Test results and their explanation. The results are shown in table I to 3. It is shown in table I that in spite of material differences in quantity, one and the same rule was observed governing both cases (Rb and Ca): the value of adsorption of the salt cations was not equivalent to the quantity of hydrogen ions passed over into the solution, but to the sum  $i_{H^+} + a_{Cl^-}$ , in which case  $i_{H^+}$  denotes the quantity of hydrogen ions passed over into the solution after the adsorption and  $a_{Cl^-}$  the value of adsorption of the salt anions (according to Fol'dard's method). It remained constant within the whole range of concentration (figure 1). The authors hence concluded that the salt-adsorption by oxidized coal from aqueous solutions is an ordinary exchange of the cations of the dissolved electrolytic substance against the hydrogen ions of the outer coating (obkladka) of a double layer of the adsorbent. This exchange is complicated by a partial absorption of the acid produced in the solution on the non-oxidized portions of the coal surface. The concerned cation-adsorption is entirely reversible (see table 2). Already by adding a relatively small quantity of organic solvent to the

Card 2/3

STRAZHESKO, D. N.

AUTHORS: Glazman, Yu. M., Strazhesko, D. N., Bisikalova, N. A. 78-1-21/43

TITLE: Investigation of the Coagulation of Lyophobic **Sols** Through Electrolytes by Means of the Method of Marked Atoms (Issledovaniye koagulyatsii liofobnykh zolei elektrolitami metodom mechenykh atomov).  
II. Adsorption of Cations by Positively Charged Colloidal Particles (II. Adsorbtsiya kationov polozhitel'no zaryazhennymi kolloidnymi chastitsami).

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 1, pp. 115-118 (USSR).

ABSTRACT: The aforesaid coagulation is always accompanied by phenomena of adsorption. The question of the importance of the latter is still of topical interest for the theory of the stability of lyophobic colloids. It is, in particular, not clear whether an adsorption of indifferent ions which have a charge of the same sign as the colloidal particles, takes place and which rôle this adsorption plays in the mechanism of coagulation. The authors states in a previous report that the adsorption of indifferent anions was very small (up to 1 to 2 micro mol per 1 g disperse phase) with the coagulation of negative brine by electrolytes. It was interesting to clarify, in which way the cations will behave in coagulation in this respect, as mentioned in the sub-title. The present

Card 1/4

Investigation of the Coagulation of Lyophobic Sols Through  
Electrolytes by Means of the Method of Marked Atoms.

78-1-21/43

report is devoted to this problem. A voluminous experimental part follows. Positively charged brine of ferric hydroxide and silver iodide served for the investigation. The dialysis was carried out in little bags of cellophane with frequent change of the water in the exterior vessel, for 14 days. The chlorides of potassium, rubidium, caesium, calcium, which were correspondingly marked with  $K^{42}$ ,  $Rb^{86}$ ,  $Cs^{134}$ ,  $Ca^{45}$  served for the coagulation, as well as nitrates of silver and lanthanum (marked with  $Ag^{110}$  and  $La^{140}$ ) served for the coagulation. The coagulating concentrations were visually determined (like in reference 1). The minimum concentration which was sufficient for achieving the complete separation of the disperse sol phase from the medium of dispersion, was denoted as threshold of coagulation ( $C_{K.S.} = C_{p.k.}$ ). The usual (commercial) radio isotopes lead, in spite of quite small quantities of contaminations, to somewhat unexpected results which substantially differed from those given in the previous report (reference 1): The adsorption of cations was quite important in several cases. The isotopes were therefore - in addition - still especially purified. The results obtained with such purified radioactive preparations are given in table 1 and 2. They show that the adsorption of cations with the coagulation of positively charged brine

Card 2/4

Investigation of the Coagulation of Lyophobic Sols Through Electro- 78-1-21/43  
lytes by Means of the Method of Marked Atoms.

of ferric hydroxide and silver iodide is extremely small and that it increases very slightly when a surplus of the coagulating electrolyte is added to the colloidal solutions. Rubidium-, caesium-, and calcium-ions are practically not adsorbed at all. The adsorption of potassium-ions seems to be somewhat higher at first sight, but in reality any radiochemical admixture was adsorbed from which the authors could apparently not completely liberate the solution. The ion-adsorption of lanthanum and silver was somewhat higher, apparently due to their specific adsorption power which is caused by structural peculiarities of their electron shells (reference 8). Consequently, the results of the present report prove, as well as those of the previous paper (reference 1) that the adsorption of ions of the same sign, especially with the coagulation of positively charged brine, is extremely small. Immediate radiometric measurements of the adsorption of the opposed ions are required, however, for a final judgement of the small adsorption power of ions of the same sign and their rôle in the mechanism of various phenomena of coagulation.

There are 2 tables, and 13 references, 8 of which are Slavic.

Card 3/4

Investigation of the Coagulation of Lyophobic Sols Through  
Electrolytes by Means of the Method of Marked Atoms.

78-1-21/43

ASSOCIATION: Technological Institute for Light Industry (Tekhnologicheskii institut legkoy promyshlennosti).  
Medical Institute im. A. A. Bogomolets, Kiev (Meditsinskiy institut im. A. A. Bogomol'tsa, Kiev)

SUBMITTED: May 18, 1957.

AVAILABLE: Library of Congress.

Card 4/4

SOV/21-59-8-13/26

5 (3)

AUTHORS: Ivanova, L. S., Strazhesko, D. M. (Strazhesko, D. M.)

TITLE: Investigation of the Mechanism of Base Adsorption by Active Carbon from Aqueous Solutions

PERIODICAL: Dopolvidi Akademii nauk Ukrain's'koi RSR, 1959, Nr 8, pp 869 - 873 (USSR)

ABSTRACT: This article deals with investigations based upon the method of P. B. Bruns and O. H. Frumkin [Ref. 5] which were conducted by the authors for studying the mechanism of sorption of various inorganic and organic bases by means of active carbon. Ash-free carbon of phenolaldehyde tar activated at a temperature of 900 - 1000°C was used as an adsorber. Some strong (LiOH, NaOH, KOH, RbOH, Ba (OH)<sub>2</sub>) and weak (NH<sub>4</sub>OH) inorganic bases as well as a number of capilar-active organic bases with a various ability of disassociation such as piperidine, diethylamine, benzylamine, codeine, aniline, methyl aniline and dimethylaniline served as objects of this investigation. It was established that in the case of acids, electro-chemical exchange of ions of the outer coating of a double carbon layer

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from Aqueous Solutions

acting as a gas electrode on ions with the same charge of the dissolved electrolyte does not only completely determine the adsorptive behavior of hydroxides of alkaline and alkaline-earth metals, but also plays an essential role in the mechanism of sorption of the weak inorganic bases as piperidine, diethylamine, etc. Such weak surface-active bases as aniline and its derivatives are adsorbed by carbon in the form of whole molecules. The basic results of this investigation are shown by the table and by the diagram (1-3). There is 1 table, 3 diagrams and 18 references, 11 of which are Soviet, 1 German, 2 French and 4 American.

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SUBMITTED: April 10, 1959  
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AUTHORS: Glazman, Yu.M., Strazhesko, D.N., Zhel'vis, Ye.F.,  
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TITLE: Changes in the Adsorption of Potential-Determining  
Ions During Coagulation of Lyophobic Sols by In-  
different Electrolytes

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 263-271  
(USSR)

ABSTRACT: The present investigation concerns the role of the  
potential-determining ions during the coagulation  
process of lyophobic sols, caused by indifferent  
electrolytes with coagulating ions of different  
valency. Objects of the investigation were the ra-  
dioactive sols  $\text{AgJ}$ ,  $\text{HgS}$  and  $\text{As}_2\text{S}_3$  (negatively charged)  
and  $\text{Fe}(\text{OH})_3$  (positively charged). By comparing the  
magnitudes of the activities of the intermicellar  
liquids of the investigated sols with the activities  
of the corresponding solutions after coagulation,

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Coagulation of Lyophobic Sols by Indifferent Electrolytes

a marked additional adsorption of potential-determining ions could be stated in each case. The desorption of iron ions, which could be observed during the coagulation of the  $\text{Fe}(\text{OH})_3$  sol, was due to secondary factors. Coagulation of lyophobic sols by indifferent electrolytes, therefore, affects not only the external but also the internal sheath of the colloid particle double layer. The changes observed thereby cannot be explained from the standpoint of a purely electrostatic compression of the double layer. There is a quantitative disparity between this conception and the obtained data. The authors conclude by recommending the further study of the coagulation theory, which is to consider the quantitative effect of electrolytes on the surface potential of colloid particles. Towards the end of the article, the authors mention the Soviet scientists V.A. Kargin and A.I. Rabinovich in connection with certain effects produced by poten-

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Coagulation of Lyophobic Sols by Indifferent Electrolytes

tial-determining ions during the coagulation process.  
There are 3 tables and 50 references, 24 of which are  
Soviet, 13 German, 10 English and 3 French.

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